

CLAIMS

We Claim:

- 5 1. A vehicle combined back-up and battery low-level alarm comprising:
a back-up alarm circuit;
a voltage sensing and comparing circuit;
a timing circuit; and
a gating circuit;
10 wherein the gating circuit performs tone generation output in response to inputs
from the back-up alarm circuit, voltage sensing and comparing circuit, and the timing
circuit.
- 15 2. The combined alarm of Claim 1, wherein the gating circuit comprises a
microcontroller.
3. The combined alarm of Claim 2, wherein the microcontroller incorporates an
20 analog to digital converter.
4. The combined alarm of Claim 1, which also comprises a signaling lamp.
- 25 5. The combined alarm of Claim 4, which also comprises an ambient light sensor.
6. The combined alarm of Claim 1, which is incorporated within a single housing.

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7. The combined alarm of Claim 1, wherein the voltage sensing and comparing circuit is responsive to two different voltage thresholds.

5 8. The combined alarm of Claim 7, wherein there is different alarm mode timing for each respective voltage threshold.

9. The combined alarm of Claim 1, wherein the back-up alarm circuit has alarm mode
10 precedence over the voltage sensing and comparing circuit.

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